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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/676,926
Filing Date: September 30, 2003
Appellant(s): LUDWIG, LESTER F.

Jeffrey Lottspeich
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 03/31/2008 appealing from the Office action mailed 11/01/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

09/812,400

10/680,591

10/702,262

10/703,023

10/737,042

11/040,163

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,981,859	**Suzuki**	**11-1999**
5,744,742	**Lindemann et al.**	**8-1998**
5,343,793	**Pattie**	**9-1994**
4,265,157	**Frick et al.**	**5-19981**

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 12, 13, 17-19, 25-44, 46, 53-54, 58-60, 66-88, 90-96 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindemann et al. (5,744,742).

Lindemann et al. disclose a system (figure 3) for control signal generation using detected dynamic characteristics of frequency components of an incoming electronic signal, said incoming electronic signal comprising a fundamental frequency component and at least one overtone component of a higher frequency than said fundamental frequency component, said fundamental frequency component and said at least one

overtone component comprising an amplitude parameter and a pitch parameter, said system comprising: at least one bandpass filter (130) adapted to isolate said at least one overtone component from said incoming electronic signal to produce an isolated overtone signal; a separate signal parameter measurement element (125) operatively coupled with each filter of said at least one bandpass filter, wherein said signal parameter measurement element provides amplitude measurement of said isolated overtone signal resulting in an isolated overtone parameter signal; and a parameter signal processing unit for receiving said isolated overtone parameter signal, said parameter signal processing unit generating an outgoing control signal (140) based upon said isolated overtone parameter signal.

Lindemann et al. disclose the system, wherein said isolated overtone parameter signal comprises an amplitude parameter (column 8, lines 17-32).

Lindemann et al. disclose the system, wherein said signal parameter measurement element further provides pitch measurement resulting in said isolated overtone parameter signal comprising a pitch parameter (column 8, lines 17-32).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4-11, 20-24, 45, 47-52, 61-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. in view of Pattie (5,343,793) and Frick et al. (4,265,157).

Lindemann et al. are discussed above. Lindemann et al. do not disclose a vibration sensing element.

However, both Pattie and Fricke et al. disclose vibrating sensing elements (Pattie – (10); Fricke et al. – (12)). Pattie and Fricke et al. disclose a system, wherein said incoming electronic signal is generated by a vibration-sensing transducer (10 & 12 - respectively) in response to vibrations of a vibrating element.

Pattie further provides the system, wherein said incoming electronic signal further includes a plurality of overtone components, wherein each of said plurality of overtone components have a higher frequency than said fundamental frequency component, said fundamental frequency component and each of said plurality of overtone components comprising an amplitude parameter and a pitch parameter, said system further comprising: a filter bank (54) comprising a plurality of said bandpass filters, wherein each bandpass filter of said plurality of bandpass filters is adapted to isolate a particular overtone component of said plurality of overtone components to generate an isolated overtone signal, said filter bank providing a plurality of isolated overtone signals generated by said plurality of bandpass filters, wherein; said separate signal parameter measurement element (56) is operatively coupled with each of said plurality of bandpass filters comprising said filter bank, wherein each of said plurality

of signal parameter measurement elements is adapted to provide amplitude measurement of a particular isolated overtone signal of said plurality of isolated overtone signals to generate an isolated overtone parameter signal, and wherein; said parameter signal processing unit is adapted to receive said isolated overtone parameter signal from each of said plurality of signal parameter measurement elements, said parameter signal processing unit generating at least one outgoing control signal (60, 62) based upon one or more of said plurality of isolated overtone parameter signals.

5. Claims 14-16, 55-57, 89, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. in view of Suzuki (5,981,859).

Lindemann et al. are discussed above. Lindemann et al. do not disclose MIDI.

However, Suzuki disclosed a system (figure 6) for control signal generation, wherein said outgoing control signal comprises a signal of MIDI format (figure 56).

It would have been obvious to one of ordinary skill at the time of the invention.to utilize the teachings of Suzuki with Lindemann et al., since Lindemann et al. disclose that the input device could be a keyboard.

(10) Response to Argument

A. The appellant argues that Lindemann fails to disclose a control signal. The appellant refers to figures 1 and 2. The examiner disagrees with the appellant. As can be seen in the figure 1, a control signal is supplied at the input of the user selection at

(100). Therefore a control signal exist beginning at the output of element (110) or at (111) which defines control signals. So at this point, we have outgoing control signals. Furthermore the signals are provided to elements (101) and (102). The control signals do not vanish at this point. Outputs (140) and (150) still have control signals. Audio is not produced at these output, but the control signals for generating the output are generated at this point. Therefore, we still have outgoing control signals. There must be a control signal supplied to the D/A converter for controlling the sound or audio to be generated by the speaker (164). The audio is not actually generated until the D/A converter converts the signal based on the make components of the signal, to an analog signal. The audio is generated by the transducer or speaker (164). So although the signal (160) is used to produced audio, the signal also contains control components for determining the intensity, pitch, and instrument sound to be output.

The applicant states "even if this were true, Lindemann is simply limited to teaching the providing of these "audio signals" based on the completely separate control signal 111. The point is that audio tone 140 is an audio signal, which is completely different than a control signal such as control signal 111." However, the examiner's point is that a control signal is needed to convert the signal from a digital signal to an analog signal. Therefore, the output signal has a control portion as well as an audio portion, wherein until the signal is converted and provided to the speaker, audio is not actually audible. The output of control signals pointed out, meets the claimed limitation. Applicant makes reference to other patents issued by the examiner. Every patent is different and the claims are different. The other patents are not on review and therefore are not

addressed. Without review of those patents, I am sure that the claims are not claiming the same elements in which the appellant is claiming. The appellant did not create control signals nor audio signals. Both are well known features in the art. The purpose of a control signal is to control audio output or the audible sound.

B. (B1) The applicant argues that Envelope builder 125 does not provide amplitude measurement. The applicant states assuming arguendo that Lindemann has the teaching of the filter, envelope builder (125) never provides amplitude measurement based on Figure 3. However, the examiner again disagrees and takes in consideration figure 2, as well as figure 3. As disclosed in Lindeman (column 6, line 64 – column 7, line 9), excitation signal 116 is filtered by filter (130). The filtered signal results into intermediate tone signal (131). Amplitude envelope builder (125) modifies the intermediate tone signal (131). Also looking at column 7, lines 35-40, excitation signal (116) is filtered by filter (208). Filtered tone (131) has amplitude envelope applied to it. Therefore, envelope builder (125) does provide amplitude measurement when applied to filtered signal (131).

(B2) Appellant argues no amplitude measurement. However, the examiner disagrees. 3 As seen in figure 9, amplitude builder does provide a form of measurement. Beginning at column 19, line 63 through column 21, line 2, it is clear that amplitude measurement is provide, wherein analysis of the amplitude is taking into account.

(B3) Appellant argues no fundamental frequency component or overtone component. Appellant argued earlier that even if Lindemann does disclose an overtone component ..... The appellant does not know what points he wants to argue. The applicant seems to agree that the filter (130) is a bandpass filter. The overtone relate to the frequency and pitch. The abstract clearly discloses the filtering of pitch and tone modelling. Clearly element (130) isolates and filters the overtones to provide an isolated overtone signal from the incoming signal. Appellant argues the time giving to respond. The appellant was given sufficient time to address any of the rejections to the claims. No amendments were made to the claims. No interview was requested. The appellant has numerous cases assigned to the examiner. The appellant's style of prosecution is to make no amendments to the claims and argue the rejections. After the final rejection, appeal is filed. Usually the arguments are addressing well known features and not any patentable subject matter.

(C) Appellant argues that the office action is silent to numerous claims. However, all of the claims are met by the prior art.

(D) Appellant argues allowability of certain claims. The examiner disagrees. There is no patentable subject matter in the claims.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Marlon T Fletcher/

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